Regional San South Sacramento County Agriculture and Habitat Lands Recycled Water, Groundwater Storage, and Conjunctive Use Program

- Program Requirement Tab, A.1 -

A. 1 Measurable Improvements to the Delta ecosystem and the tributaries to the Delta.

The program is located within and adjacent to the legal Delta and one of its tributaries, the Cosumnes River (California Water Code §85058), Figure 1. The Cosumnes is connected to the Mokelumne, and both rivers were specifically identified as tributaries to the Delta by CWC for the purposes of the WSIP in its May 19, 2017 Issue working session (Pg. 1). Both the Cosumnes and Mokelumne are directly hydrologically connected to the Delta. The program's groundwater benefits also improve Snodgrass Slough and the wetland complex in Stone Lake National Wildlife Refuge (NWR), both of which are wholly within the Delta.

The program has specific benefits directly to the Delta through groundwater supplementation, which improves stream flow and maintains shallow groundwater water elevations. These changes in stream flow and groundwater elevation result in habitat improvements that benefit terrestrial, riparian and aquatic native and listed species. Even in areas where the groundwater recharge occurs outside of the Delta, the groundwater flow (gradient) connects directly to the Delta or its tributaries. Our modeling shows that the program will continue to provide these benefits even under climate change scenarios. The program will also support the existing conservation efforts at the Consumes Preserve and Stone Lakes NWR, and ensure these protected lands are able to maintain their conservation values in the face of climate change. See also SacIWRM and CalSIM modeling technical memorandums in Benefit Calculation, Monetization, and Resiliency tab, A.1 Project Conditions.

The program has the following measureable benefits to the Delta:

- Restores depleted groundwater levels up to 35 feet within 15 years.
- Increases groundwater storage capacity by 245,000 acre-feet within 10 years.
- Supports and increases riparian and wetland conditions on up to 4,933 acres.
- Increases additional habitat to support an additional 700 Sandhill Cranes.
- Restores 500 acres of vernal pool habitats.
- Increases frequency of Cosumnes River instream flows that exceed 10 cfs by up to 16%.
- Increases the number of days that support fall-run Chinook salmon passage by 34% and increase the number of adult Chinook salmon by 143.
- Creates a groundwater banking system with up to 30,000 AFY available for conjunctive use during drought conditions.
- Reduces the mass loadings of salt to the lower Sacramento River and Delta by an average of 190,000 lbs/day (95 tons per day).
- Increases the number of visitors to the Cosumnes River Preserve and Stone Lakes National Wildlife Refuge.

Each of these benefits are detailed in South Sacramento County Agriculture and Habitat Lands Recycled Water, Groundwater Storage, and Conjunctive Use Program: Conceptual Ecological Plan & Ecosystem Benefits section 2 (Ecosystem Benefits) (heretofore referred to as the Ecological Plan and located in

Physical Public Benefits tab, A.2 Ecosystem Benefits Supporting Document). Additionally, see section 1.7 (Habitat Restoration), and section 4 (Ecosystem Resiliency) of the Ecological Plan, as well as the South Sacramento County Agriculture and Habitat Lands Recycled Water Program Environmental Impact Report sections 3.5 (Biological Resources) and 3.10 (Hydrology and Water Quality). https://www.regionalsan.com/post/south-county-ag-final-environmental-impact-report

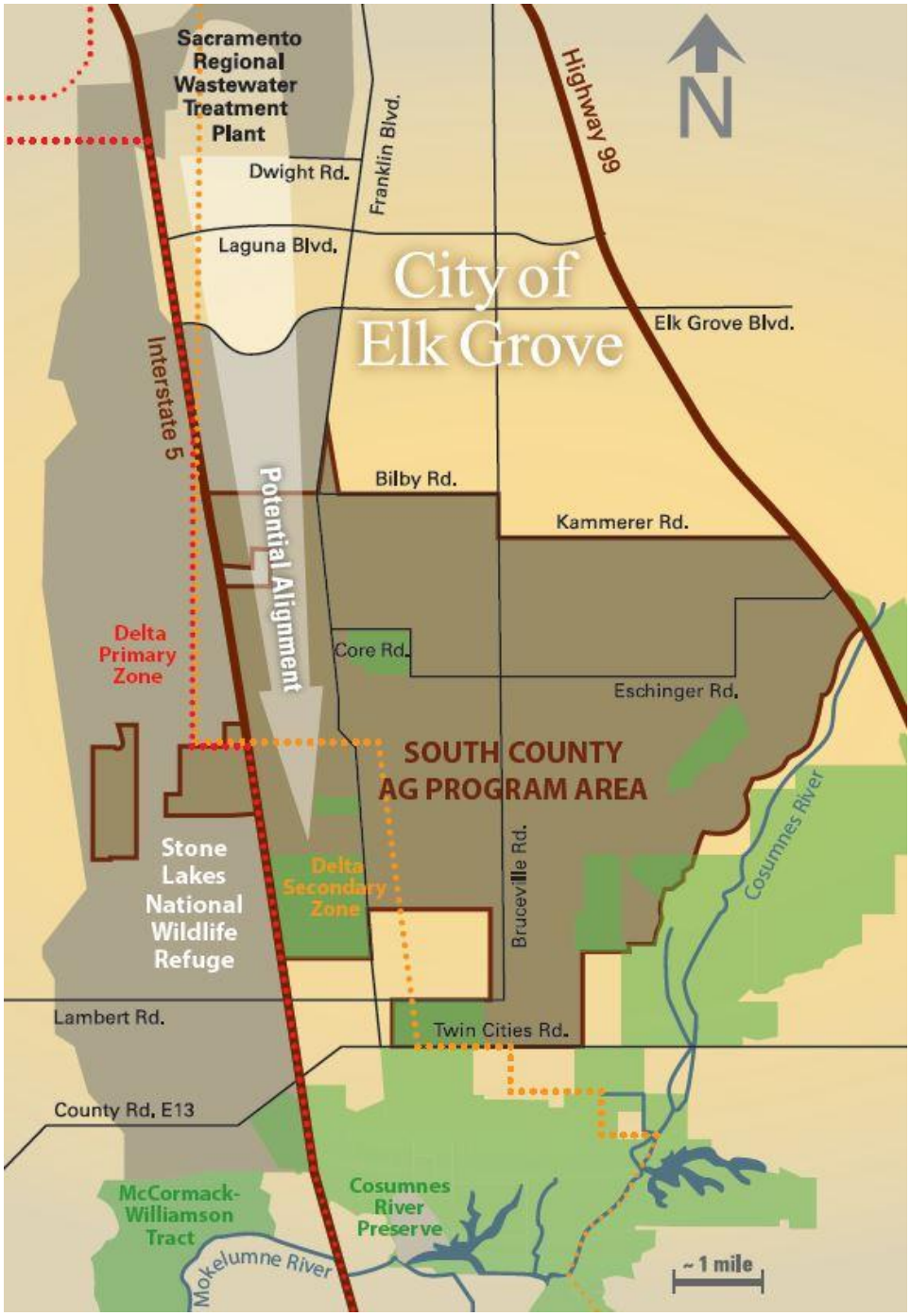

Figure 1: Program Location Showing Vicinity of Program to the Legal Boundary of the Delta